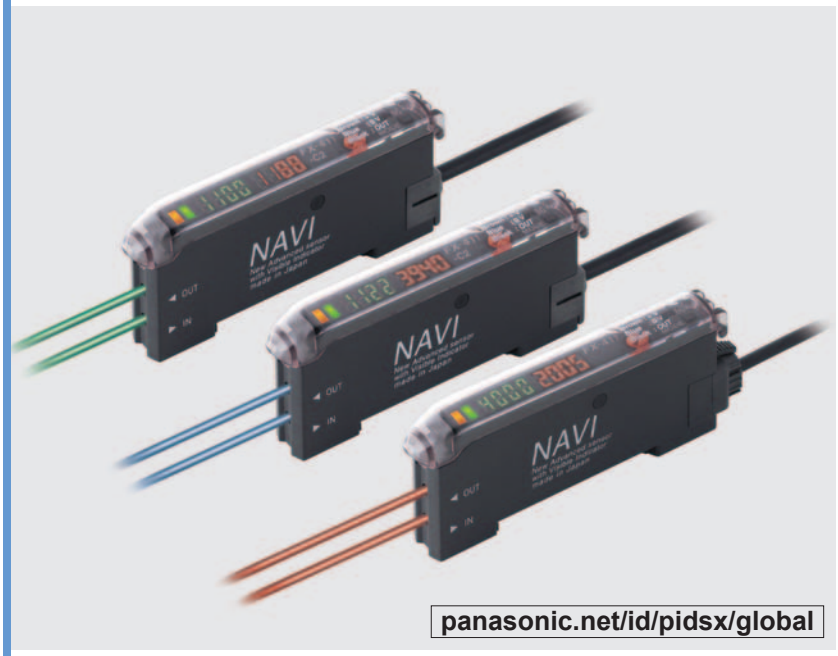
Digital Fiber Sensor
FX-410 SERIES

Related Information
■ General terms and conditions..... F-7
■ Sensor selection guide ..... P.3~
■ Glossary of terms / General precautions.... P.1455~ / P.1458~
■ Korea's S-mark..... P.1506



Conforming to EMC Directive

cULus Recognition (Excluding FX-412□)

Certified (Excluding FX-412□ and PNP output type)

PNP output type available | Timer | Light intensity monitor | Interference prevention

Just "Look" and "Turn", Simple, easy-to-use fiber sensor

Incident light intensity and threshold value are displayed simultaneously

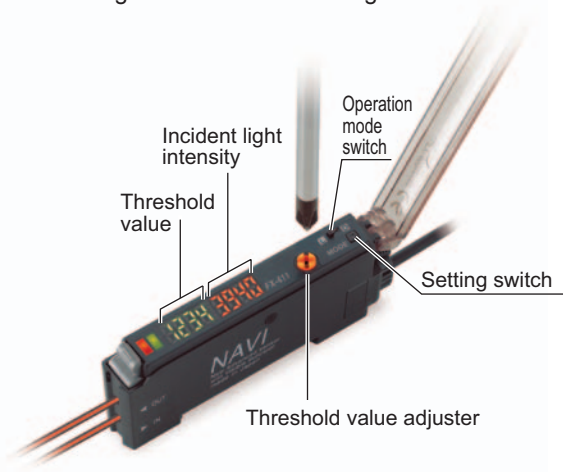
The incident light intensity and threshold value can be checked at the same time with no operations needed. In addition, no complex mode settings are needed when the values are adjusted.

Adjustment variations according to the individual have been eliminated

Accurate control of the adjuster threshold values by using numerical values is possible due to the digital display. This allows anybody to perform the same settings.

Easy-to-understand operating panel layout

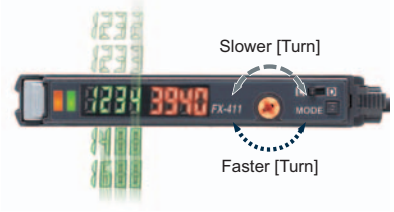
The threshold value adjuster and operation mode switch are large and easy to see, and they can be operated with the same sensitivity as general-purpose photoelectric sensors. Functions which are not commonly used can be operated using a non-obtrusive setting switch.

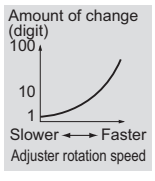


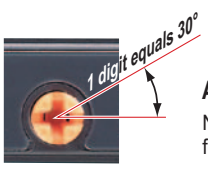
Threshold values can be changed smoothly

This sensor uses the R.S.S.* adjuster with a compact encoder inside.
The sensitivity amount changes depending on the rotation speed of the adjuster, so that adjustment can be carried out speedily.

* Rotation Speed Sensitivity







Adjustment in units of 1 digit is also easy

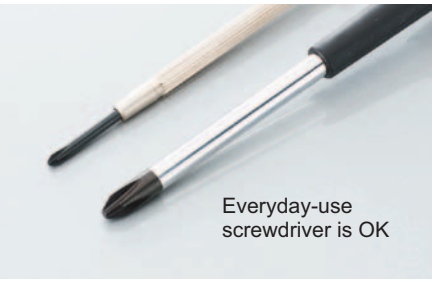
No need for the fine changes in force required for photoelectric sensors.

FIBER SENSORS
LASER SENSORS
PHOTOELECTRIC SENSORS
MICRO PHOTOELECTRIC SENSORS
AREA SENSORS
LIGHT CURTAINS / SAFETY COMPONENTS
PRESSURE / FLOW SENSORS
INDUCTIVE PROXIMITY SENSORS
PARTICULAR USE SENSORS
SENSOR OPTIONS
SIMPLE WIRE-SAVING UNITS
WIRE-SAVING SYSTEMS
MEASUREMENT SENSORS
STATIC ELECTRICITY PREVENTION DEVICES
LASER MARKERS
PLC
HUMAN MACHINE INTERFACES
ENERGY CONSUMPTION VISUALIZATION COMPONENTS
FA COMPONENTS
MACHINE VISION SYSTEMS
UV CURING SYSTEMS
Selection Guide
Fibers
Fiber Amplifiers
FX-500
FX-100
FX-300
FX-410
FX-311
FX-301-F7/ FX-301-F

Large endless adjuster

New concept

Standard screwdrivers can be used to turn the adjuster as well as precision screwdrivers. In addition, an “endless” mechanism is used which eliminates the possibility of any damage being caused by turning the adjuster too far.



FX-412 can be turned by finger!

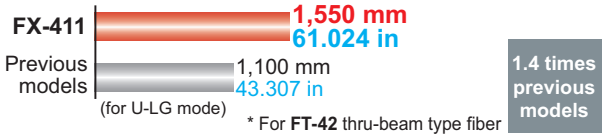
New concept

The adjuster can be turned directly by finger, without the need for a screwdriver.

Beam power greatly increased to give strong performance under adverse environments

Red LED type

The beam power has been greatly increased. This means a longer sensing distance and less trouble from problems such as dust. These sensors have ample performance for workplace needs.



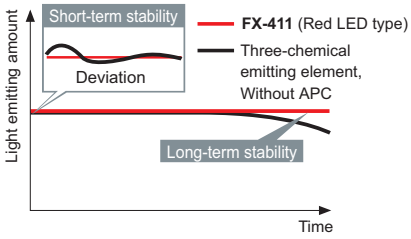
* For **FT-42** thru-beam type fiber

Improved stability over both long and short terms

Red LED type

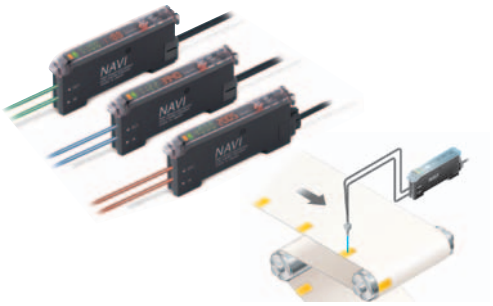
The red LED type sensors have a “four-chemical emitting element” which maintains stability of light emissions for long-term operation. Furthermore, all models have an “APC (Auto Power Control) circuit” which improves stability at times such as when the power is turned on. These features improve overall stability compared to previous models.

• **Stable sensing comparison**



Three types are available, with red, blue and green light

Different sensors can be selected to suit the application.



Color combinations that can be discerned during mark sensing

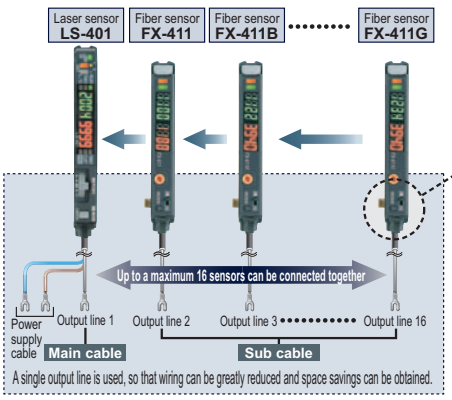
Background color \ Mark color	White	Yellow	Orange	Red	Green	Blue	Black
White		●	●	●●	●●●	●●●	●●●
Yellow	●		●	●	●●●	●●●	●●●
Orange	●	●		●●	●●●	●●●	●●●
Red	●●	●	●●		●	●●	●●
Green	●●●	●●●	●●●	●		●	●
Blue	●●●	●●●	●●●	●●	●		●
Black	●●●	●●●	●●●	●●	●	●	

● :Red LED type ● :Blue LED type ● :Green LED type

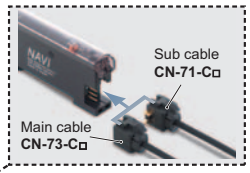
Excellent workability and ease of maintenance

Connector type

The same quick-connection cable that is used for sensors such as the **FX-300** series of digital fiber sensors is used. This means that they can be used together with other types of sensors such as laser sensors, and the number of power supply cables can be reduced.



The sensors can be connected together with other sensors such as the **FX-300** series of digital fiber sensors and the **GA-311** of inductive proximity sensors. In addition, the **SC** series of sensor PLC connection units with MIL connector compatibility can also be used to further reduce the amount of wiring.



Quick-connection cables can be used for power supply cascade wiring.
Both main and sub units utilize the same amplifier body.